Cloud-driven Changes in Aerosol Optical Properties

J. Ogren (NOAA/ESRL) and E. Andrews (U. Colo./CIRES)

- Unscavenged particles in cloudy air are smaller and darker.
- Removal of the scavenged particles by precipitation will yield an aerosol with different radiative effects.
- For the clean marine aerosol sampled at Pt. Reyes, CA, this cloud processing only has a small (~4%) effect on aerosol radiative forcing efficiency at top of atmosphere.
- ASP-funded studies in Nov'06 and July'07 will look at cloud processing of more polluted aerosols.